

Title (en)  
Heat-reflecting glass and double-glazing unit using the same

Title (de)  
Wärmereflektierendes Glas und Doppelscheibenfenster mit diesem Glas

Title (fr)  
Verre réfléchissant la chaleur et fenêtre à double vitrage utilisant ce verre

Publication  
**EP 1002773 A1 20000524 (EN)**

Application  
**EP 99123110 A 19991118**

Priority  
JP 32822998 A 19981118

Abstract (en)  
A heat-reflecting glass is disclosed which has a low visible light reflectance so as not to arouse troubles such as a reflected-light nuisance to the neighborhood, and has high heat radiation shielding properties and a greenish or bluish color tone, a recent taste of the market, and which can be produced at low cost and is especially suitable for use in relatively low-latitude temperate regions. Also disclosed is a heat-reflecting double-glazing unit using the glass. The heat-reflecting glass comprises a glass plate comprising a glass composition which consists essentially of, in % by weight, basic glass compositions comprising 65 to 80% SiO<sub>2</sub>, 0 to 5% Al<sub>2</sub>O<sub>3</sub>, 0 to 5% B<sub>2</sub>O<sub>3</sub>, 0 to 10% MgO, 5 to 15% CaO, 10 to 18% Na<sub>2</sub>O, 0 to 5% K<sub>2</sub>O, 5 to 15% MgO+CaO and 10 to 20% Na<sub>2</sub>O+K<sub>2</sub>O, and coloring components comprising 0.30 to 1.30% total iron oxide in terms of Fe<sub>2</sub>O<sub>3</sub>, 0 to 1.0% TiO<sub>2</sub>, and 0 to 20 ppm CoO and in which the ratio of (the amount of FeO in terms of Fe<sub>2</sub>O<sub>3</sub>) to (the amount of total iron oxide in terms of Fe<sub>2</sub>O<sub>3</sub>) is from 0.2 to 0.58, a titanium nitride film formed on one of the two main surfaces of the glass plate, and a metal oxide film formed on the titanium nitride film, said heat-reflecting glass having a visible light reflectance of from 4 to 25% when viewed from the uncoated side of the glass plate and giving a greenish or bluish reflected color tone when viewed from the uncoated side of the glass plate.

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CPC (source: EP)  
**C03C 3/087** (2013.01); **C03C 4/02** (2013.01); **C03C 17/3435** (2013.01)

Citation (search report)  
• [Y] EP 0616883 A2 19940928 - SAINT GOBAIN VITRAGE [FR]  
• [Y] DE 19636301 A1 19970313 - GLAVERBEL [BE]  
• [Y] EP 0638527 A1 19950215 - SAINT GOBAIN VITRAGE [FR]

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